# **Functional & Performance Testing Template**

**Model Performance Test**

|  |  |
| --- | --- |
| Date | 26 june 2025 |
| Team ID | LTVIP2025TMID32104 |
| Project Name | sustainable smart city assistant using ibm granite llm |
| Maximum Marks |  |

## **Test Scenarios & Results**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case ID** | **Scenario (What to test)** | **Test Steps (How to test)** | **Expected Result** | **Actual Result** | **Pass/Fail** |
| FT-01 | Text Input Validation (e.g., chat, eco tip) | Enter valid and invalid prompts into chat/eco tips input field | Valid prompts accepted; invalid or empty prompts show error | Valid inputs accepted; empty prompt handled with toast error | Pass |
| FT-02 | Number Input Validation (e.g., KPI forecasting) | Upload CSV with numerical values, include incorrect data type | Accepts valid data; flags incorrect format | Invalid rows flagged, forecast shown for valid rows | Pass |
| FT-03 | Content Generation (e.g., eco tips, city reports) | Submit topic or KPI data to generate content | Content generated as per module logic | Accurate eco tips and reports generated via Watsonx | Pass |
| FT-04 | API Connection Check | Call IBM Watsonx & Pinecone using env credentials | Model/API responds with expected output | Granite LLM and Pinecone API returned correct outputs | Pass |
| PT-01 | Response Time Test | Time content generation (chat, report) | Response within 3–4 seconds | Avg. time: 2.8 seconds (chat), 3.2 seconds (report) | Pass |
| PT-02 | API Speed Test | Run concurrent chat/report queries | No crashes, stable performance | Handled multiple requests with consistent timing | Pass |
| PT-03 | File Upload Load Test (e.g., CSV, PDFs) | Upload large and multiple input files | No crashing, proper parsing | System processed valid files; errors shown for corrupt ones | Pass |